








Madhab Nirola

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Work Experience




- 2022 – 2024  **Junior Research Fellow** Sikkim Manipal Institute of Technology, Sikkim Manipal University, Sikkim, India.
- Worked on a research project under the Indian Council of Medical Research.
 - Visualized COVID-19 disease spread in India using Geospatial Analysis.

Education


- 2020 – 2022  **Master of Computer Application, Sikkim Manipal Institute of Technology, Majitar, Sikkim**
CGPA: 9.5 out of 10
Project Title: *Geospatial Analysis to Identify Region-Wise Blood Donor Information*
- 2017 – 2020  **Bachelor of Computer Application, Sikkim Manipal Institute of Technology, Majitar, Sikkim**
CGPA: 8.9 out of 10
Project Title: *Online Quiz Examination System*
- 2014 – 2016  **12th, Stream: Science, Bongaigaon Railway HS School, Assam**
Percentage: 57%
- 2014  **10th, Bongaigaon Railway HS School, Assam**
Percentage: 60%

Research Publications

Journal Articles

- 1 D. K. Sharma, M. Nirola, M. Gupta, A. Sharma, P. Dhungel, and B. K. Sharma, "Drug utilisation patterns and clinical outcomes in hospitalised covid-19 patients: A geospatial and machine learning approach," *Indian Journal of Medical Research*, 2025.  DOI: 10.25259/IJMR_352_24.
- 2 M. Gupta, M. Nirola, A. Sharma, P. Dhungel, H. Singh, and A. Gupta, "Geospatial analysis of contagious infection growth and cross-boundary transmission in non-vaccinated districts of north-east indian states during the covid-19 pandemic," *The Lancet Regional Health-Southeast Asia*, vol. 28, 2024.  DOI: 10.1016/j.lansea.2024.100451.
- 3 M. Gupta, M. Nirola, D. K. Sharma, *et al.*, "Tracing the covid-19 spread pattern in india through a gis-based spatio-temporal analysis of interconnected clusters," *Scientific Reports*, vol. 14, no. 1, p. 847, 2024.  DOI: 10.1038/s41598-023-50933-4.

Conference Articles

- 1 M. Nirola, M. Gupta, and A. Sharma, "Assessment of blood donor information using kernel density maps: A case study at gangtok district, sikkim and modeling of a web application," in *2022 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS)*, IEEE, 2022, pp. 131–137.  DOI: 10.1109/ICCCIS56430.2022.10037725.

Skills

Languages	📖	Strong reading, writing and speaking competencies for English, Hindi, Nepali.
Coding	📖	Python, SQL, C Programming, Java programming, PHP.
Databases	📖	MySQL SQLite.
Web Dev	📖	HTML, CSS, JavaScript.
Misc.	📖	Academic research, teaching, training.
Softwares	📖	ArcGIS Pro, MATLAB, QGIS, SNAP, Google Earth Engine.

Miscellaneous Experience

Achievements

2024	📖	Remote Sensing and GIS Training , Conducted 10 days Remote Sensing and GIS training program at Asian Development Research Institute, Patna, Bihar.
2023	📖	Attended ArcGIS Pro: Essential Workflows Training Program , Sikkim Manipal Institute of Technology.
2020	📖	University Prize for Academic Excellence , Sikkim Manipal Institute of Technology.